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Infection control implications of the laundering of ambulance staff uniforms and reusable mops

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Table 1: Log₁₀ reduction in bacteria recovered from uniform swatches contaminated with *E. coli*, *S. aureus* and *C. difficile* before and after washing at 30°C and 60°C

Bacterial challenge	Temperature	Unsoiled						Soiled					
		Control (not washed) log ₁₀ CFU	Washed_1 Log ₁₀ reduction	Washed_2 Log ₁₀ reduction	Washed_3 Log ₁₀ reduction	Mean log ₁₀ reduction	Standard deviation	Control (not washed) log ₁₀ CFU	Washed_1 Log ₁₀ reduction	Washed_2 Log ₁₀ reduction	Washed_3 Log ₁₀ reduction	Mean log ₁₀ reduction	Standard deviation
<i>E. coli</i>	30°C	4.806				†>1.408	-	6.224				†>2.826	-
	60°C	4.685				†>1.287	-	6.489				†>3.091	-
<i>S. aureus</i>	30°C	5.929	0.183	0.189	0.274	0.216	0.051	6.076	-0.065	0.103	0.056	0.031	0.086
	60°C	4.749				†>1.351	-	5.949				†>2.551	-
<i>C. difficile</i>	30°C	6.426	-0.256	-0.504	-0.159	-0.306	0.178	7.345	1.247	0.977	1.205	1.143	0.145
	60°C	6.859	1.667	1.558	1.651	1.625	0.059	7.176	1.713	2.276	1.729	1.906	0.321

Table 2: Log₁₀ reduction in bacteria recovered from mop strands contaminated with *E. coli*, *S. aureus* and *C. difficile* before and after washing at 30°C and 95°C

Bacterial challenge	Temperature	Unsoiled						Soiled					
		Control (not washed) log ₁₀ CFU	Washed_1 Log ₁₀ reduction	Washed_2 Log ₁₀ reduction	Washed_3 Log ₁₀ reduction	Mean log ₁₀ reduction	Standard deviation	Control (not washed) log ₁₀ CFU	Washed_1 Log ₁₀ reduction	Washed_2 Log ₁₀ reduction	Washed_3 Log ₁₀ reduction	Mean log ₁₀ reduction	Standard deviation
<i>E. coli</i>	30°C	6.850	2.901	3.151	2.000	2.684	0.605	6.811	0.831	2.639	2.252	1.907	0.952
	95°C	6.844				†>3.446	-	7.304				†>3.906	-
<i>S. aureus</i>	30°C	5.875	1.858		1.667	‡1.762	0.135	5.699	1.301	2.062	1.673	1.679	0.381
	95°C	6.757				†>3.359	-	6.816				†>3.418	-
<i>C. difficile</i>	30°C	7.495	1.330	1.112	1.229	1.224	0.109	7.364	2.102	1.568	1.347	1.672	0.388
	95°C	6.839		2.346		#2.346	-	7.411				†>4.013	-

Key: The log₁₀ reduction in cultivable bacteria was calculated by comparing the log₁₀ CFUs recovered from the test materials (uniform swatches and mop strands) following washing and then comparing to the log₁₀ CFUs for the unwashed controls. † Where the CFU counts (washed test materials) were below the lower limit of detection for the Miles and Misra assay the log₁₀ reduction was estimated based on the distance between the log₁₀ CFU value for the unwashed control and the lower limit of detection of the assay (3.398 log₁₀ CFU), and reported as 'greater than' values. ‡ One out of three and # two out of three of the replicates recorded values below the lower limit of detection (3.398 log₁₀ CFU) for the Miles and Misra assay.